

	Type	L #	Hits	Search Text	DBs	Time Stamp	Comments	Error Definition	Error Count
1	BRS	L1	27	(cartilage adj oligomeric adj matrix adj protein) or (thrombospondin-5)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/01/03 10:38			0
2	BRS	L2	38	hCOMP or (cartilage adj oligomeric adj matrix adj protein) or (thrombospondin-5)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/01/03 10:38			0
3	BRS	L3	6634	trypsin same (cleav\$3 or digest\$3)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/01/03 10:39			0
4	BRS	L4	0	2 same 3	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/01/03 10:39			0
5	BRS	L5	4051	Elisa same kit	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/01/03 10:40			0
6	BRS	L6	0	2 same 5	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/01/03 10:40			0
7	BRS	L7	116691	(biological adj matrix) or cartilage or (bone adj matrix) or collagen or hyaluronan or (fibrin adj gel) or (carbon adj fiber) or (polylactic adj acid)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/01/03 10:42			0
8	BRS	L8	27	7 same 2	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/01/03 10:47			0
9	BRS	L9	2	7 same 2 same composition	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/01/03 10:48			0
10	BRS	L10	3130	chondrocyte or (mesenchymal adj stem adj cell)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/01/03 10:50			0

	Type	L #	Hits	Search Text	DBs	Time Stamp	Comments	Error Definition	Error Count
11	BRS	L11	280	differentiation adj agent	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/01/03 10:50			0
12	BRS	L12	0	chondrocyte adj sulfate adj proteoglycan	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/01/03 10:50			0
13	BRS	L13	8401	(collagen adj gel) or (polylactic adj acid)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/01/03 10:51			0
14	BRS	L14	0	13 same 2	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/01/03 10:52			0
15	BRS	L15	1	8 same (10 or 11)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/01/03 10:52			0

	Type	L #	Hits	Search Text	DBs	Time Stamp	Comments	Error Definition	Error Count
1	BRS	L1	38	hCOMF or (cartilage adj oligomeric adj matrix adj protein) or (thrombospondin-5)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/01/03 11:42			0
2	BRS	L2	116	chen adj hui.in.	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/01/03 11:42			0
3	BRS	L3	23	lawler adj john.in.	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/01/03 11:43			0
4	BRS	L4	0	1 same (2 or 3)	USPAT; US-PGPUB; EPO; JPO; DERWENT	2003/01/03 11:43			0

=> file medline caplus biosis embase scisearch agricola

COST IN U.S. DOLLARS

SINCE FILE

TOTAL

ENTRY

SESSION

FULL ESTIMATED COST

0.21

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FILE 'MEDLINE' ENTERED AT 11:00:57 ON 03 JAN 2003

FILE 'CAPLUS' ENTERED AT 11:00:57 ON 03 JAN 2003

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FILE 'SCISEARCH' ENTERED AT 11:00:57 ON 03 JAN 2003

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FILE 'AGRICOLA' ENTERED AT 11:00:57 ON 03 JAN 2003

=> s (cartilage oligomeric matrix protein) or thrombospondin-5

L1 955 (CARTILAGE OLIGOMERIC MATRIX PROTEIN) OR THROMBOSPONDIN-5

=> s l1 or hcomp

L2 969 L1 OR HCOMP

=> s l2 (p) trypsin (p) (cleav? or digest?)

L3 10 L2 (P) TRYPSIN (P) (CLEAV? OR DIGEST?)

=> duplicate remove l3

DUPLICATE PREFERENCE IS 'MEDLINE, CAPLUS, BIOSIS, EMBASE, SCISEARCH'

KEEP DUPLICATES FROM MORE THAN ONE FILE? Y/(N):n

PROCESSING COMPLETED FOR L3

L4 2 DUPLICATE REMOVE L3 (8 DUPLICATES REMOVED)

=> d l4 1-2 ibib abs

L4 ANSWER 1 OF 2

MEDLINE

DUPLICATE 1

ACCESSION NUMBER: 2000458618 MEDLINE

DOCUMENT NUMBER: 20409010 PubMed ID: 10852928

TITLE: Cartilage oligomeric matrix protein is a calcium-binding protein, and a mutation in its type 3 repeats causes conformational changes.

AUTHOR: Chen H; Deere M; Hecht J T; Lawler J

CORPORATE SOURCE: Division of Tumor Biology and Angiogenesis, Department of Pathology, Beth Israel Deaconess Medical Center and Harvard Medical School, Boston, Massachusetts 02215, USA.

CONTRACT NUMBER: HL49081 (NHLBI)

SOURCE: JOURNAL OF BIOLOGICAL CHEMISTRY, (2000 Aug 25) 275 (34) 26538-44.

Journal code: 2985121R. ISSN: 0021-9258.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200009

ENTRY DATE: Entered STN: 20001005

Last Updated on STN: 20001005

Entered Medline: 20000925

AB Mutations in residues in the type 3 calcium-binding repeats and

COOH-terminal globular region of ***cartilage*** ***oligomeric***

matrix ***protein*** (COMP) lead to two skeletal dysplasias, pseudoachondroplasia and multiple epiphyseal dysplasia. It has been hypothesized that these mutations cause COMP to misfold and to be retained in the endoplasmic reticulum. However, this hypothesis is not supported by previous reports that COMP, when purified in the presence of EDTA, shows no obvious difference in electron microscopic appearance in the presence

or absence of calcium ions. Since this discrepancy may be due to the removal of calcium during purification, we have expressed wild-type COMP and the most common mutant form found in pseudoachondroplasia, MUT3, using a mammalian expression system and have purified both proteins in the presence of calcium. Both proteins are expressed as pentamers. Direct calcium binding experiments demonstrate that wild-type COMP, when purified in the presence of calcium, is a calcium-binding protein. Rotary shadowing electron microscopy and limited *****trypsin***** *****digestion***** at various calcium concentrations show that there are conformational changes associated with calcium binding to COMP. Whereas COMP exists in a more compact conformation in the presence of calcium, it shows a more extended conformation when calcium is removed. MUT3, with a single aspartic acid deletion in the type 3 repeats, binds less calcium and presents an intermediate conformation between the calcium-replete and calcium-depleted forms of COMP. In conclusion, we show that a single mutation in the type 3 repeats of COMP causes the mutant protein to misfold. Our data demonstrate the importance of calcium binding to the structure of COMP and provide a plausible explanation for the observation that mutations in the type 3 repeats and COOH-terminal globular region lead to pseudoachondroplasia.

L4 ANSWER 2 OF 2 MEDLINE DUPLICATE 2
 ACCESSION NUMBER: 1998161946 MEDLINE
 DOCUMENT NUMBER: 98161946 PubMed ID: 9501326
 TITLE: The distribution of cartilage oligomeric matrix protein (COMP) in tendon and its variation with tendon site, age and load.
 AUTHOR: Smith R-K; Zunino L; Webbon P M; Heinegard D
 CORPORATE SOURCE: Department of Farm Animal and Equine Medicine and Surgery, Royal Veterinary College, Hatfield, Hertfordshire, UK.
 SOURCE: MATRIX BIOLOGY, (1997 Nov) 16 (5) 255-71.
 Journal code: 9432592. ISSN: 0945-053X.
 PUB. COUNTRY: GERMANY; Germany, Federal Republic of
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals; Space Life Sciences
 ENTRY MONTH: 199805
 ENTRY DATE: Entered STN: 19980514
 Last Updated on STN: 19980514
 Entered Medline: 19980504

AB A protein prominent in guanidine hydrochloride extracts of adult bovine and equine digital flexor tendons was confirmed to be *****Cartilage***** *****Oligomeric***** *****Matrix***** *****Protein***** (COMP) by non-reducing and reducing SDS-PAGE, reaction with rabbit anti-COMP polyclonal antiserum on Western blots, *****trypsin***** *****digestion***** followed by HPLC on a C2/C18 column, and identification of COMP mRNA from tendon on Northern blots. Immunohistochemistry and Western blots of extracts showed COMP to be present in all regions of digital flexor tendons. Equine tendon COMP was purified by ion exchange chromatography and gel filtration and used in a heterologous inhibition ELISA to quantify COMP in equine digital flexor tendons at different ages, and in other tendons and ligaments. Mean COMP levels in digital flexor tendon were approximately 2-5mg/g wet weight, but they showed a large variation. Levels were low in neonatal tendon but rose rapidly during growth, with the metacarpal (tensional) superficial digital flexor tendon having the highest levels (approximately 10mg/g wet weight). Levels subsequently declined in this region, while in areas which experience a variable amount of compression, levels increased less but then remained constant. Extensor tendons and collateral ligaments, which experience less loading in vivo, had levels similar to those in neonatal tendon. COMP was identified in scarred skin and granulation tissue but not in normal skin, chronic fibrosis, or a fibrosarcomatous skin growth. A unilateral non-weight-bearing growing animal contained three to six times more COMP in the weight-bearing digital flexor tendons compared to the paralyzed limb, while the extensor tendons had similar amounts in both limbs. With the recent discovery of a COMP gene mutation causing pseudoachondroplasia (Hecht et al., 1995), in which lax tendons and ligaments are a feature, the present data suggest that COMP is synthesized in response to, and is necessary for tendon to resist, load.

=> d his

(FILE 'HOME' ENTERED AT 11:00:32 ON 03 JAN 2003)

FILE 'MEDLINE, CAPLUS, BIOSIS, EMBASE, SCISEARCH, AGRICOLA' ENTERED AT
11:00:57 ON 03 JAN 2003

L1 955 S (CARTILAGE OLIGOMERIC MATRIX PROTEIN) OR THROMBOSPONDIN-5
L2 969 S L1 OR HCOMP
L3 10 S L2 (P) TRYPSIN (P) (CLEAV? OR DIGEST?)
L4 2 DUPLICATE REMOVE L3 (8 DUPLICATES REMOVED)
L5 7475 S ELISA (P) KIT

=> s 15 (p) 12

L6 0 L5 (P) L2

=> s (biological matrix) or cartilage or (bone matrix) or collagen or hyaluronan or (fibrin gel) o
L7 616907 (BIOLOGICAL MATRIX) OR CARTILAGE OR (BONE MATRIX) OR COLLAGEN
OR HYALURONAN OR (FIBRIN GEL) OR (CARBON FIBER) OR (POLYLACTIC
ACID)

=> s 12 (p) 17 (p) composition

L8 16 L2 (P) L7 (P) COMPOSITION

=> duplicate remove l8

DUPLICATE PREFERENCE IS 'MEDLINE, CAPLUS, BIOSIS, EMBASE, SCISEARCH'

KEEP=DUPLICATES FROM MORE THAN ONE FILE? Y/(N):n

PROCESSING COMPLETED FOR L8

L9 8 DUPLICATE REMOVE L8 (8 DUPLICATES REMOVED)

=> d 19 1-8 ibib abs

L9 ANSWER 1 OF 8 MEDLINE DUPLICATE 1
ACCESSION NUMBER: 2002723012 IN-PROCESS
DOCUMENT NUMBER: 22373340 PubMed ID: 12485691
TITLE: The influence of ageing and exercise on tendon growth and
degeneration-hypotheses for the initiation and prevention
of strain-induced tendinopathies.
AUTHOR: Smith R K W; Birch H L; Goodman S; Heinegard D; Goodship A
E
CORPORATE SOURCE: Department of Veterinary Clinical Sciences, The Royal
Veterinary College, Hawkshead Lane, North Mymms, Herts. AL9
7TA, Hatfield, UK.
SOURCE: COMPARATIVE BIOCHEMISTRY AND PHYSIOLOGY. PART A, MOLECULAR
AND INTEGRATIVE PHYSIOLOGY, (2002 Dec) 133 (4) 1039-50.
Journal code: 9806096. ISSN: 1095-6433.
PUB. COUNTRY: United States
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: IN-PROCESS; NONINDEXED; Priority Journals
ENTRY DATE: Entered STN: 20021218
Last Updated on STN: 20021218

AB Strain-induced tendinopathy is a common injury in both human and equine
athletes, with increasing incidence associated with greater involvement in
sport and an increasingly aged population. This paper reviews our studies
on the abundant non-collagenous protein, ***cartilage***
oligomeric ***matrix*** ***protein*** (COMP), in equine
tendons. Its variation between tendon type and site, age and exercise has
provided an insight into how age and exercise influence tendon growth and
maturation. Tendons can be broadly divided into two types, reflecting
their different matrix ***composition*** and function: the
energy-storing tendons used for weight-bearing and locomotion, which
suffer a high incidence of strain-induced tendinopathy, and positional
tendons involved in limb placement or manipulative skills. It would appear
that while energy-storing tendon can respond to the mechanical forces
applied to it during growth, there is no evidence that it can do so after
skeletal maturity. Instead, cumulative fatigue damage causes degeneration
at the molecular level, potentially weakening it and increasing the risk
of clinical injury. Appropriate exercise regimes early in life may help to
improve the quality of growing tendon, thereby reducing the incidence of
injury during ageing or subsequent athletic career.

L9 ANSWER 2 OF 8 MEDLINE DUPLICATE 2
 ACCESSION NUMBER: 2001011600 MEDLINE
 DOCUMENT NUMBER: 20385047 PubMed ID: 10924396
 TITLE: Differences in the concentration of various synovial fluid constituents between the distal interphalangeal joint, the metacarpophalangeal joint and the navicular bursa in normal horses.
 AUTHOR: Viitanen M; Bird J; Maisi P; Smith R; Tulamo R M; May S
 CORPORATE SOURCE: Farm Animal and Equine Medicine and Surgery, Royal Veterinary College, University of London, UK.
 SOURCE: RESEARCH IN VETERINARY SCIENCE, (2000 Aug) 69 (1) 63-7.
 Journal code: 0401300. ISSN: 0034-5288.
 PUB. COUNTRY: ENGLAND: United Kingdom
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 200010
 ENTRY DATE: Entered STN: 20010322
 Last Updated on STN: 20010322
 Entered Medline: 20001023

AB As a prerequisite for the identification of navicular disease markers, the concentrations of ***cartilage*** ***oligomeric*** ***matrix*** ***protein*** (COMP), total glycosaminoglycans (GAG), ***hyaluronan***, metalloproteinases (MMP) 2 and 9 and total protein were measured in synovial fluid samples obtained from the distal interphalangeal joint (DIP), the metacarpophalangeal joint (MCP) and the navicular bursa of 24 horses. Mean GAG, COMP and total protein levels were significantly higher in the DIP joint and in the navicular bursa compared to the MCP joint. ***Hyaluronan*** content was lower. MMP -2 activity was present in all fluids measured and had similar levels in different joints. MMP -9 was present in 42 per cent of MCP joint samples and 58 per cent of DIP joint samples and of navicular bursal samples. In relation to the constituents measured, the ***composition*** of navicular bursal fluid was similar to the articular synovial fluids, in particular that obtained from the DIP joint. Correlation between the constituents of DIP joint fluid and navicular bursal fluid obtained from the same legs was statistically significant for all the parameters measured.

L9 ANSWER 3 OF 8 MEDLINE
 ACCESSION NUMBER: 2000124477 MEDLINE
 DOCUMENT NUMBER: 20124477 PubMed ID: 10659252
 TITLE: Should equine athletes commence training during skeletal development?: changes in tendon matrix associated with development, ageing, function and exercise.
 AUTHOR: Smith R K; Birch H; Patterson-Kane J; Firth E C; Williams L; Cherdchutham W; van Weeren W R; Goodship A E
 CORPORATE SOURCE: Royal Veterinary College, Hatfield, Herts, UK.
 SOURCE: EQUINE VETERINARY JOURNAL. SUPPLEMENT, (1999 Jul) 30 201-9.
 Journal code: 9614088.
 PUB. COUNTRY: ENGLAND: United Kingdom
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 200003
 ENTRY DATE: Entered STN: 20000314
 Last Updated on STN: 20000314
 Entered Medline: 20000302

AB In human athletes, conditioning, training and competition are commenced before skeletal maturity. Yet in equine athletics, racing of young (age 2 years) horses remains contentious. Tendon injury persists as major causes of wastage in equine athletes. Minimising injury and associated welfare issues could involve a radical approach to the timing and implementation of conditioning and training. Tendons were examined from Thoroughbreds, Dutch Warmblood foals, working horses and also a group of wild horses to evaluate effects of age, function and exercise. Gross mechanical properties did not differ significantly with age or exercise, but showed a high variance within each group. Mechanical properties of tendon tissue showed significant differences as a function of age and location. The ***collagen*** fibril crimp angle and length showed a regional reduction in the central core with exercise and age, with a synergistic effect. Regional differences in ***collagen*** fibril diameter were seen in long-term exercised older horses, but not in short-term exercised, or

younger, horses. The higher proportion of small fibrils in the central region of the long-term exercised horses did not correlate with new ***collagen*** formation and therefore appear to result from disassembly of the larger diameter fibrils. Fibril diameter distributions were influenced by exercise regimens in the growing foal. Changes in molecular ***composition*** occurred in longer-term exercise and older horses, in the centre of the tendon, with higher levels of type III ***collagen*** and changes in glycosaminoglycan (GAG) content. ***Cartilage*** ***Oligomeric*** ***Matrix*** ***Protein*** (COMP) levels also appear to be modulated by age, function and superimposition of exercise. These changes were all exacerbated with age and exercise, suggesting appropriate exercise in young horses may lead to a lower incidence of injury than in older horses. An hypothesis is advanced that immature tendon can respond to exercise while mature tendon has limited, if any, ability to do so. These findings support potentially controversial earlier conditioning and racing of younger, rather than older, equine athletes.

L9 ANSWER 4 OF 8 MEDLINE
 ACCESSION NUMBER: 2000447094 MEDLINE
 DOCUMENT NUMBER: 20452295 PubMed ID: 10999666
 TITLE: Age-related changes and effect of exercise on the molecular composition of immature equine superficial digital flexor tendons.
 AUTHOR: Cherdchutham W; Becker C; Smith R K; Barneveld A; van Weeren P R
 CORPORATE SOURCE: Department of Equine Sciences, Faculty of Veterinary Medicine, Utrecht University, The Netherlands.
 SOURCE: EQUINE VETERINARY JOURNAL. SUPPLEMENT, (1999 Nov) (31) 86-94.
 Journal code: 9614088.
 PUB. COUNTRY: ENGLAND: United Kingdom
 DOCUMENT TYPE: (CLINICAL TRIAL)
 Journal; Article; (JOURNAL ARTICLE)
 (RANDOMIZED CONTROLLED TRIAL)
 LANGUAGE: English
 FILE SEGMENT: Priority Journals
 ENTRY MONTH: 200010
 ENTRY DATE: Entered STN: 20001027
 Last Updated on STN: 20001027
 Entered Medline: 20001019

AB To test the hypothesis that exercise at very young age may influence the eventual molecular ***composition*** (and hence the biomechanical properties) of tendon tissue in the horse, 43 Dutch Warmblood foals were allotted to 3 differently exercised groups (box-rest, box-rest with training and pasture exercise). Twenty-four superficial digital flexor tendons (SDFTs) were collected at age 5 months (8 from each exercise group) and the others were obtained at 11 months after an additional period of light exercise that was equal for all remaining foals and was intended to see if any induced changes would be reversible or not. Significant changes in DNA content (cellularity), hyaluronic acid (HA) and polysulphated glycosaminoglycans (PSGAGs) were found after the 5 month period of different exercise regimens. There was a tendency towards an exercise-related effect on hydroxylysine content and number of hydroxylysylpyridinoline (HP) crosslinks. Levels of ***Cartilage*** ***Oligomeric*** ***Matrix*** ***Protein*** (COMP), measured by homologous inhibition ELISA, showed significant differences at 5 months and were highest in foals kept at pasture and lowest in foals maintained in a box but given enforced exercise. At 11 months, the biochemical parameters of the tendons from the foals of the former box-rest and pasture groups became similar, indicating the capacity of the immature tendon to recover from a retarded development. However, the ratio of PSGAGs per unit of DNA of the former training group was significantly lower than those from the other groups, suggesting that the training regimen in this study had a lasting negative effect on the tenocytes resulting in a decrease of the production of PSGAGs. Therefore, inappropriate or excessive exercise may damage developing tendon, with limited recovery after normalising the exercise level. These possibly deleterious effects of a training regimen on tendon development may be important for the management of young would-be equine athletes.

L9 ANSWER 5 OF 8 CAPLUS COPYRIGHT 2003 ACS
 ACCESSION NUMBER: 1998:706109 CAPLUS

DOCUMENT NUMBER: 129:285993
 TITLE: Use of cartilage oligomeric matrix protein for the treatment of rheumatoid arthritis
 INVENTOR(S): Heinegard, Dick; Lorentzen, Johnny C.; Klareskog, Lars
 PATENT ASSIGNEE(S): Astra AB, Swed.
 SOURCE: PCT Int. Appl., 27 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9846253	A1	19981022	WO 1998-SE682	19980414
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9870938	A1	19981111	AU 1998-70938	19980414
AU 746221	B2	20020418		
BR 9808591	A	20000523	BR 1998-8591	19980414
EP 1019078	A1	20000719	EP 1998-917896	19980414
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
JP 2001520647	T2	20011030	JP 1998-543820	19980414
NO 9905004	A	19991014	NO 1999-5004	19991014
US 2001002392	A1	20010531	US 2000-750208	20001228

PRIORITY APPLN. INFO.:

SE 1997-1409 A 19970415
 WO 1998-SE682 W 19980414
 US 1998-125937 A1 19980828

AB Use of ***cartilage*** ***oligomeric*** ***matrix***
 protein (COMP), or fragments or analogs thereof, for the manuf. of a pharmaceutical ***compn*** for prevention or treatment of arthritic conditions is described, wherein the pharmaceutical ***compn*** is administered in an amt. effective to prevent or treat the arthritic condition. The arthritogenicity of, and humoral reaction to, bovine COMP in rats is described.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 6 OF 8 SCISEARCH COPYRIGHT 2003 ISI (R)

ACCESSION NUMBER: 96:861470 SCISEARCH

THE GENUINE ARTICLE: VT565

TITLE: Patterns of glycosylation in ***cartilage***
 oligomeric ***matrix*** ***protein***
 measured by monosaccharide ***composition*** analysis, MALDI/TOF and electrospray mass spectrometry
 AUTHOR: Zaia J (Reprint); Boynton R; Heinegard D; Barry F
 CORPORATE SOURCE: OSIRIS THERAPEUT INC, BALTIMORE, MD 21231
 COUNTRY OF AUTHOR: USA
 SOURCE: GLYCOBIOLOGY, (OCT 1996) Vol. 6, No. 7, pp. 115-115.
 Publisher: OXFORD UNIV PRESS UNITED KINGDOM, WALTON ST
 JOURNALS DEPT, OXFORD, ENGLAND OX2 6DP.
 ISSN: 0959-6658.

DOCUMENT TYPE: Conference; Journal
 FILE SEGMENT: LIFE
 LANGUAGE: English
 REFERENCE COUNT: 0

L9 ANSWER 7 OF 8

MEDLINE

DUPLICATE 3

ACCESSION NUMBER: 96195288 MEDLINE

DOCUMENT NUMBER: 96195288 PubMed ID: 8619919

TITLE: Predictors of joint damage in rheumatoid arthritis.

AUTHOR: Wollheim F A

CORPORATE SOURCE: Department of Rheumatology, Lund University Hospital, Sweden.

SOURCE: APMIS, (1996 Feb) 104 (2) 81-93. Ref: 103

Journal code: 8803400. ISSN: 0903-4641.

PUB. COUNTRY: Denmark

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, ACADEMIC)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 199606

ENTRY DATE: Entered STN: 19960627
Last Updated on STN: 19980206
Entered Medline: 19960614

AB Rheumatoid arthritis (RA) is the dominant form of destructive chronic arthritis with the potential to cause substantial disability and permanent functional impairment. The final extent and progression rate with time, however, varies markedly. In order to study effects of intervention and to support early aggressive and atoxic therapy in selected cases, predictive disease markers are needed. Recent advances regarding joint tissue
composition and pathophysiology have defined a number of biological marker candidates which need to be explored for possible prognostic information. Some markers are characteristic for RA, such as rheumatoid factors and certain autoantibodies, which although they are more prevalent among patients with aggressive disease are not sensitive as predictors in early disease. Genetic susceptibility markers have been claimed to be good predictors of persisting arthritis in early synovitis clinics, but their role as severity markers in established disease is limited. Unspecific markers of inflammation, notably ESR or CRP when persistently elevated, are useful to monitor disease course and newer markers need to document their superiority over these. Another group of markers are attractive because of enriched or exclusive occurrence in joint tissue, and altered metabolism in joint disease. Thus,
collagen type III propeptides, hyaluronates, and neopterin originating in the synovium could be useful, and, in particular, hyaluronate levels indeed do provide some predictive information. Highly tissue-specific ***cartilage*** metabolites include aggrecan fragments, ***collagen*** II fragments, ***cartilage***
oligomeric ***matrix*** ***protein*** (COMP) and the extraarticular ***cartilage*** matrix protein (CMP). When used alone or in combination in early disease some information can be obtained which may in the future facilitate prognostication. Bone metabolism can be monitored and there are different markers for synthesis and resorption. Meanwhile, whilst the new markers are essential research tools, their routine clinical usefulness remains to be proven.

L9 ANSWER 8 OF 8 MEDLINE DUPLICATE 4

ACCESSION NUMBER: 93079835 MEDLINE

DOCUMENT NUMBER: 93079835 PubMed ID: 1448898

TITLE: Immunohistochemical localization of matrix proteins in the femoral joint cartilage of growing commercial pigs.

AUTHOR: Ekman S; Heinegard D

CORPORATE SOURCE: Department of Anatomy and Histology, Swedish University of Agricultural Sciences, Uppsala.

SOURCE: VETERINARY PATHOLOGY, (1992 Nov) 29 (6) 514-20.
Journal code: 0312020. ISSN: 0300-9858.

PUB. COUNTRY: United States

DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 199212

ENTRY DATE: Entered STN: 19930129
Last Updated on STN: 19930129
Entered Medline: 19921228

AB The immunocytochemical localization of several matrix macromolecules, including ***collagen*** type II and proteoglycans, in the distal femoral articular-epiphyseal ***cartilage*** complex of 15 commercial pigs between the age of 6 and 18 weeks was studied. Early osteochondrotic lesions, i.e., chondronecrosis in the resting region of the growth
cartilage, as well as extensions of necrotic ***cartilage*** into the subchondral bone, were present in all animals, except those 6 weeks old. A battery of antibodies were used for identification of macromolecules in the matrix at different stages of the disease. Chondrocyte involvement in the process could be studied by identifying the sequence of alterations in matrix macromolecules as the lesion developed.

The immunostaining for aggrecan (large aggregating proteoglycans),
 cartilage ***oligomeric*** ***matrix*** ***protein***
 fibronectin, ***collagen*** type II, fibromodulin, and biglycan was
 more prominent in the areas of chondronecrosis, extending into the
 subchondral bone, than in the normal resting region. This altered pattern
 of matrix macromolecules resembled that of the matrix of the proliferative
 chondrocytes and suggests that the chondrocyte maturation had stopped in
 the proliferative zone. The matrix in the areas of chondronecrosis in the
 resting region resembled that in the normal resting region. Thus the
 chondronecrosis appears to have preceded alterations of the matrix
 composition. The antibody reactivity pattern was, however, altered
 in the matrix of the clustered chondrocytes in areas of chondronecrosis.
 Staining in these regions suggested a more prominent appearance of
 fibronectin and ***collagen*** type II than in the normal matrix of
 the resting region. These changes are suggestive of attempt to
 repair. (ABSTRACT TRUNCATED AT 250 WORDS)

=> s chondrocyte or (mesenchymal stem cell)

5 FILES SEARCHED...

L10 46675 CHONDROCYTE OR (MESENCHYMAL STEM CELL)

=> d his

(FILE 'HOME' ENTERED AT 11:00:32 ON 03 JAN 2003)

FILE 'MEDLINE, CAPLUS, BIOSIS, EMBASE, SCISEARCH, AGRICOLA' ENTERED AT
 11:00:57 ON 03 JAN 2003

L1 955 S (CARTILAGE OLIGOMERIC MATRIX PROTEIN) OR THROMBOSPONDIN-5
 L2 969 S L1 OR HCOMP
 L3 10 S L2 (P) TRYPSIN (P) (CLEAV? OR DIGEST?)
 L4 2 DUPLICATE REMOVE L3 (8 DUPLICATES REMOVED)
 L5 7475 S ELISA (P) KIT
 L6 0 S L5 (P) L2
 L7 616907 S (BIOLOGICAL MATRIX) OR CARTILAGE OR (BONE MATRIX) OR COLLAGEN
 L8 16 S L2 (P) L7 (P) COMPOSITION
 L9 8 DUPLICATE REMOVE L8 (8 DUPLICATES REMOVED)
 L10 46675 S CHONDROCYTE OR (MESENCHYMAL STEM CELL)

=> s differentiation agent

L11 784 DIFFERENTIATION AGENT

=> s chondrocyte sulfate proteoglycan

L12 0 CHONDROCYTE SULFATE PROTEOGLYCAN

=> s l9 (p) (l10 or l11)

PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH
 FIELD CODE - 'AND' OPERATOR ASSUMED 'L77 (P) '
 PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH
 FIELD CODE - 'AND' OPERATOR ASSUMED 'L79 (P) '
 PROXIMITY OPERATOR LEVEL NOT CONSISTENT WITH
 FIELD CODE - 'AND' OPERATOR ASSUMED 'L83 (P) '
 L13 1 L9 (P) (L10 OR L11)

=> d his

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 L10 46675 S CHONDROCYTE OR (MESENCHYMAL STEM CELL)
 L11 784 S DIFFERENTIATION AGENT
 L12 0 S CHONDROCYTE SULFATE PROTEOGLYCAN

L13 1 S L9 (P) (L10 OR L11)

=> log y

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